



## SEQUENCE LISTING

<110> Gudas, Jean M.  
Haak-Frendscho, Mary  
Foord, Orit  
Liang, Meina L.  
Ahluwalia, Kiran  
Bhakta, Sunil

<120> ANTIBODIES DIRECTED TO MONOCYTE  
CHEMO-ATTRACTANT PROTEIN-1 (MCP-1) AND USES THEREOF

<130> ABXAZ.001A

<140> 10/644,277

<141> 2003-08-19

<150> 60/404,802

<151> 2002-08-19

<160> 150

<170> FastSEQ for Windows Version 4.0

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<212> DNA

<213> Homosapien

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<400> 2

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Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
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Ala	Thr	Asn	Glu	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly
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Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu
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Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu
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Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Gln
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Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys
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Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln
	370					375					380				
Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly
385					390					395					400
Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln
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 His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys  
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 <212> DNA  
 <213> Homosapien

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 tggtagcagc agaaaaccagg acagcctcct aaactgctca tttactgggc atctatccgg 180  
 gaatccgggg tccctgaccg attcagttcc agcgggtctg agacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttttagtagt 300  
 ccgtggacgt tccggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480  
 caatcgggta actcccagga gagtgtcaca gaggaggaca gcaaggacag cacctacagc 540  
 ctacgagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600  
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaaga gcttcaacag gggagagtgt 660

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 <212> PRT  
 <213> Homosapien

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 Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Ser Ser Gly Ser Glu Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Phe Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
 145 150 155 160  
 Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp  
 165 170 175  
 Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr  
 180 185 190  
 Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser  
 195 200 205

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys  
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 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtg aacaatctac 180  
 gcacagaagt tccagggcag agtcaaccatg accgaggaca catctacaga cacagcctac 240  
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<210> 6  
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 20 25 30  
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 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Thr Asn Glu Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly  
 100 105 110  
 Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
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 Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser  
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 <211> 159  
 <212> PRT  
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 Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Leu Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Arg Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
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 35 40 45  
 Thr Cys Ala Gly Thr Gly Ala Ala Gly Gly Thr Cys Thr Cys Cys Thr  
 50 55 60  
 Gly Cys Ala Ala Gly Gly Thr Thr Thr Cys Cys Gly Gly Ala Thr Ala  
 65 70 75 80  
 Cys Ala Cys Cys Cys Thr Cys Ala Cys Thr Gly Ala Ala Thr Thr Ala  
 85 90 95  
 Thr Cys Cys Ala Thr Gly Cys Ala Cys Thr Gly Gly Gly Thr Gly Cys  
 100 105 110  
 Gly Ala Cys Ala Gly Gly Cys Thr Cys Cys Thr Gly Gly Ala Ala Ala  
 115 120 125  
 Ala Gly Gly Gly Cys Thr Thr Gly Ala Gly Thr Gly Gly Ala Thr Gly  
 130 135 140

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145					150					155					160
Ala	Ala	Gly	Ala	Thr	Gly	Gly	Thr	Gly	Ala	Ala	Ala	Cys	Ala	Ala	Thr
				165					170						175
Cys	Thr	Ala	Cys	Gly	Cys	Ala	Cys	Ala	Gly	Ala	Ala	Gly	Thr	Thr	Cys
			180					185					190		
Cys	Ala	Gly	Gly	Gly	Cys	Ala	Gly	Ala	Gly	Thr	Cys	Ala	Cys	Cys	Ala
		195					200					205			
Thr	Gly	Ala	Cys	Cys	Gly	Ala	Gly	Gly	Ala	Cys	Ala	Cys	Ala	Thr	Cys
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Thr	Ala	Cys	Ala	Gly	Ala	Cys	Ala	Cys	Ala	Gly	Cys	Cys	Thr	Ala	Cys
225					230					235					240
Ala	Thr	Gly	Gly	Ala	Gly	Cys	Thr	Gly	Ala	Gly	Cys	Ala	Gly	Cys	Cys
				245					250						255
Thr	Gly	Ala	Gly	Ala	Thr	Cys	Thr	Gly	Ala	Gly	Gly	Ala	Cys	Ala	Cys
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Gly	Gly	Cys	Cys	Gly	Thr	Gly	Thr	Ala	Thr	Thr	Ala	Cys	Thr	Gly	Thr
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Cys	Thr	Ala	Cys	Thr	Gly	Gly	Gly	Gly	Cys	Cys	Ala	Gly	Gly	Gly	Ala
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Ala	Cys	Cys	Cys	Thr	Gly	Gly	Thr	Cys	Ala	Cys	Cys	Gly	Thr	Cys	Thr
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Cys	Cys	Thr	Cys	Ala	Gly	Cys	Cys	Thr	Cys	Cys	Ala	Cys	Cys	Ala	Ala
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Gly	Gly	Gly	Cys	Cys	Cys	Ala	Thr	Cys	Gly	Gly	Thr	Cys	Thr	Thr	Cys
	370					375					380				
Cys	Cys	Cys	Cys	Thr	Gly	Gly	Cys	Gly	Cys	Cys	Cys	Thr	Gly	Cys	Thr
385					390					395					400
Cys	Cys	Ala	Gly	Gly	Ala	Gly	Cys	Ala	Cys	Cys	Thr	Cys	Cys	Gly	Ala
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Gly	Ala	Gly	Cys	Ala	Cys	Ala	Gly	Cys	Gly	Gly	Cys	Cys	Cys	Thr	Gly
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Gly	Gly	Cys	Thr	Gly	Cys	Cys	Thr	Gly	Gly	Thr	Cys	Ala	Ala	Gly	Gly
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Ala	Cys	Thr	Ala	Cys	Thr	Thr	Cys	Cys	Cys	Cys	Gly	Ala	Ala	Cys	Cys
	450					455					460				
Gly	Gly	Thr	Gly	Ala	Cys	Gly	Gly	Thr	Gly	Thr	Cys	Gly	Thr	Gly	Gly
465					470					475					480
Ala	Ala	Cys	Thr	Cys	Ala	Gly	Gly	Cys	Gly	Cys	Thr	Cys	Thr	Gly	Ala
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Cys	Cys	Ala	Gly	Cys	Gly	Gly	Cys	Gly	Thr	Gly	Cys	Ala	Cys	Ala	Cys
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Cys	Thr	Thr	Cys	Cys	Cys	Ala	Gly	Cys	Thr	Gly	Thr	Cys	Cys	Thr	Ala
		515					520					525			
Cys	Ala	Gly	Thr	Cys	Cys	Thr	Cys	Ala	Gly	Gly	Ala	Cys	Thr	Cys	Thr
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<213> Homosapien

<400> 10

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Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
      35           40           45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
      50           55           60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
      65           70           75           80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
      85           90           95
Ala Thr Asn Asp Phe Trp Ser Gly Tyr Tyr Asn Tyr Trp Gly Gln Gly
      100          105          110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
      115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
      130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
      145          150          155          160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
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Gln Ser Ser Gly Leu Tyr Ser Leu Ser
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<210> 11

<211> 490

<212> DNA

<213> Homosapien

<400> 11

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tggtaccaac agaaaccagg acagcctcct aaactgctca tttactgggc atctatccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
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<210> 12

<211> 163

<212> PRT

<213> Homosapien

<400> 12

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      20           25           30
Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln
      35           40           45
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Pro	Pro	Lys	Leu	Leu	Ile	Tyr	Trp	Ala	Ser	Ile	Arg	Glu	Ser	Gly	Val
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Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr
65					70					75					80
Ile	Asn	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Tyr	Cys	Gln	Gln
			85						90					95	
Tyr	Phe	Tyr	Ser	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile
			100					105					110		
Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp
		115					120					125			
Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn
	130					135					140				
Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu
145					150					155					160
Gln	Ser	Gly													

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 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgatga aacaatctac 180  
 gcacagaagt tccaggacag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctaag atctgaggac acggccgtgt attactgtgc aaccaacgat 300  
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 tccaccaag gcccacggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420  
 acagcgcccc tgggctgcct ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480  
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<210> 14  
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Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	His	Thr	Leu	Thr	Glu	Leu
		20						25				30			
Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
	35					40					45				
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Asp	Glu	Thr	Ile	Tyr	Ala	Gln	Lys	Phe
	50					55				60					
Gln	Asp	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85						90				95		
Ala	Thr	Asn	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Cys	Trp	Gly	Gln	Gly
		100						105				110			
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe
		115					120					125			



Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu
130						135					140				
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp
145					150					155					160
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu
				165					170					175	
Gln	Ser	Ser	Gly	Leu											
			180												

<210> 15  
 <211> 490  
 <212> DNA  
 <213> Homosapien

<400> 15  
 gacatcgtgc tgaccagtc tccagactcc ctggctgtgt gtctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagtgtttta tatagtccca acaataagaa cttcttagtt 120  
 tggtagcagc agagaccagg acagcctcct aagctgctca tttactgggc atctaccggg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtagt 300  
 ccgtggacgt tccggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgccctc 480  
 caatcggtga 490

<210> 16  
 <211> 163  
 <212> PRT  
 <213> Homosapien

<400> 16  
 Asp Ile Val Leu Thr Gln Ser Pro Asp Ser Leu Ala Val Cys Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Pro Asn Asn Lys Asn Phe Leu Val Trp Tyr Gln Gln Arg Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
 145 150 155 160  
 Gln Ser Gly

<210> 17

<211> 1335  
 <212> DNA  
 <213> Homosapien

<400> 17

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cagggtccagc tgggtacagtc tgggggtgag gtgaagaagc ctgggggcctc agtgaagggtc 60
tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacagggt 120
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagtctac 240
atggagctga gcagcctgag atctgaggac acggccatgt attactgtgc aacacgggag 300
ttttggactg gttattttga ccactggggc cagggaaccc tggtcaccgt ctctcagcc 360
tccaccaagg gcccatcggg cttccccctg gcgccttgct ccaggagcac ctccgagagc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtctcagga 540
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca acttcggcac ccagacctac 600
acctgcaacg tagatcacia gccagcaac accaagggtg acaagacagt tgagcgcaaa 660
tggtgtgtcg agtgcaccac gtgcccagca ccacctgtgg caggaccgtc agtcttcctc 720
ttcccccaa aaccgaagga caccctcatg atctcccga cccctgaggt cacgtgcgtg 780
gtggtggacg tgagccacga agaccccgag gtccagttca actggtacgt ggacggcgtg 840
gaggtgcata atgccaaagc aaagccacgg gaggagcagt tcaacagcac gttccgtgtg 900
gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgaag 960
gtctccaaca aaggcctccc agcccccatc gagaaaacca tctccaaaac caaagggcag 1020
ccccgagaac cacagggtgta caccctgccc ccatcccggg aggagatgac caagaaccag 1080
gtcagcctga cctgcctggt caaaggcttc taccacagcg acatcgccgt ggagtgaggag 1140
agcaatgggc agccggagaa caactacaag accacacctc ccatgctgga ctccgacggc 1200
tccttcttcc tctacagcaa gctcaccgtg gacaagagca ggtggcagca ggggaacgtc 1260
ttctcatgct ccgtgatgca tgaggctctg cacaaccact acacgcagaa gagcctctcc 1320
ctgtctccgg gtaaa 1335
```

<210> 18  
 <211> 445  
 <212> PRT  
 <213> Homosapien

<400> 18

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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
20 25 30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
35 40 45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
50 55 60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Val Tyr
65 70 75 80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Met Tyr Tyr Cys
85 90 95
Ala Thr Arg Glu Phe Trp Thr Gly Tyr Phe Asp His Trp Gly Gln Gly
100 105 110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115 120 125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130 135 140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145 150 155 160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
165 170 175
```

Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser
			180					185					190		
Ser	Asn	Phe	Gly	Thr	Gln	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro
			195				200					205			
Ser	Asn	Thr	Lys	Val	Asp	Lys	Thr	Val	Glu	Arg	Lys	Cys	Cys	Val	Glu
			210				215					220			
Cys	Pro	Pro	Cys	Pro	Ala	Pro	Pro	Val	Ala	Gly	Pro	Ser	Val	Phe	Leu
225					230					235					240
Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu
				245					250						255
Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Gln
			260						265						270
Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys
			275				280					285			
Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Phe	Arg	Val	Val	Ser	Val	Leu
			290				295					300			
Thr	Val	Val	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys
305					310					315					320
Val	Ser	Asn	Lys	Gly	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys
				325						330					335
Thr	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser
			340						345						350
Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys
			355				360					365			
Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln
			370				375					380			
Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly
385					390					395					400
Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln
				405						410					415
Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn
			420						425						430
His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys			
			435				440					445			

<210> 19  
 <211> 660  
 <212> DNA  
 <213> Homosapien

<400> 19  
 gacatcgtga tgacccagtc tccagactcc ctggetgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagtggttta tacagctcca acaataagaa ctacttagtt 120  
 tggatcagc agaaaccagg acagcctcct aaactgctca tttactgggc atctatccgg 180  
 gaatccgggg tcccggaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtact 300  
 ccgctcactt tcggcggagg gaccaagggtg gagatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccggccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480  
 caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540  
 ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaaagt ctacgcctgc 600  
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 20  
 <211> 220

<212> PRT

<213> Homosapien

<400> 20

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Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1           5           10           15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
          20           25           30
Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln
          35           40           45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val
          50           55           60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65           70           75           80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
          85           90           95
Tyr Tyr Ser Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile
          100          105          110
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
          115          120          125
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
          130          135          140
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145          150          155          160
Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
          165          170          175
Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
          180          185          190
Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
          195          200          205
Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
          210          215          220
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<210> 21

<211> 543

<212> DNA

<213> Homosapien

<400> 21

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caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60
tcctgcaagg tttccggata cacttttact gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaagctac 180
gcacagaagt tccggggcag agtcaccatg accgaggaca catctacaga cacagcccac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aaccaacgat 300
ttttggagtg gttattttga ctattggggc caggggaaccc tggtcaccgt ctctcagacc 360
tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420
acagcgcccc tgggctgcct ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540
ctt                                     543
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<210> 22

<211> 181

<212> PRT

<213> Homosapien

<400> 22

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala	
1				5					10					15		
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Phe	Thr	Glu	Leu	
		20						25					30			
Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met	
		35					40					45				
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ser	Tyr	Ala	Gln	Lys	Phe	
	50					55					60					
Arg	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	His	
65					70					75					80	
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	
			85					90					95			
Ala	Thr	Asn	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	
		100						105					110			
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	
	115						120					125				
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu	
	130					135					140					
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	
145					150					155					160	
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	
				165				170						175		
Gln	Ser	Ser	Gly	Leu												
			180													

<210> 23

<211> 460

<212> DNA

<213> Homosapien

<400> 23

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gacatccaga tgaccagtc tccatcttcc gtgtctgcat ctgtaggaga cagagtcacc 60
atcacttgtc gggcgagtc ggggtattgac atctacttag cctgggtatca gcagaaacca 120
gggaaagccc ctaagctcct gatcaatgct gcatccagtt tgcaaaacgg ggtcccctca 180
agggtcggcg gcagtggatc tgggacagat ttcactctca ccacagcgg cctgcagcct 240
gaagattttg caacttacta ttgtcaactg acttactttt tcccgtggac gtccggccaa 300
gggaccaagg tggaaatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc 460

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<210> 24

<211> 153

<212> PRT

<213> Homosapien

<400> 24

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Val	Ser	Ala	Ser	Val	Gly	
1				5					10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly	Ile	Asp	Ile	Tyr	
		20						25				30				
Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile	
		35				40					45					
Asn	Ala	Ala	Ser	Ser	Leu	Gln	Asn	Gly	Val	Pro	Ser	Arg	Phe	Gly	Gly	
	50					55				60						
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Gly	Leu	Gln	Pro	
65				70					75					80		



Gln Ser Ser Gly Leu  
180

<210> 27  
<211> 459  
<212> DNA  
<213> Homosapien

<400> 27  
gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
atcaactgca agtccagcca gagtggttta tacagctcca acaataagaa ctacctagct 120  
tggtagcaag ctgctcattt actggacata tatccgggaa tccgggggtcc ctgaccgatt 180  
cagtggcagc gggctctggga cagatttcac tctcaccatc agcagcctgc aggctgaaga 240  
tgtggcagtt tattactgtc aggaacatta tagtattccg tggacgttcg gccaaaggac 300  
caagggtggaa atcaaacgaa ctgtggctgc accatctgtc ttcattcttc cgccatctga 360  
tgagcagttg aactgcctct gttgtgtgcc tgctgaataa cttctatccc agagaggcca 420  
aagtacagtg gaagggtgat aacgccctcc aatcgggta 459

<210> 28  
<211> 149  
<212> PRT  
<213> Homosapien

<400> 28  
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
1 5 10 15  
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
20 25 30  
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Leu Leu Ile Tyr Trp Thr  
35 40 45  
Tyr Ile Arg Glu Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser  
50 55 60  
Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Ala Glu Asp Val  
65 70 75 80  
Ala Val Tyr Tyr Cys Gln Glu His Tyr Ser Ile Pro Trp Thr Phe Gly  
85 90 95  
Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val  
100 105 110  
Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Asn Cys Leu Cys Cys Val  
115 120 125  
Pro Ala Glu Leu Leu Ser Gln Arg Gly Gln Ser Thr Val Glu Gly Gly  
130 135 140  
Arg Pro Pro Ile Gly  
145

<210> 29  
<211> 524  
<212> DNA  
<213> Homosapien

<400> 29  
caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60  
tcctgcaagg ttcccgata caccctcact gaattatcca tgactgggt gcgacaggct 120  
cctggaaaag ggcttgagtg gatgggaggt ttgatacctg aagatgatga aacaatctac 180  
gcacagaagt tccagggcag agtcacatg accgaggaca catctacaga cacggcctac 240

atggagctga gcagcctgag atctgaggac acggccgtgt atttctgtgc aaccaacgat 300  
 ttttggagtg gttattttga ctgctgggac cagggaaacc tggtcaccgt ctctcagacc 360  
 tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggaacac ctccgagagc 420  
 acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
 aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgt 524

<210> 30  
 <211> 174  
 <212> PRT  
 <213> Homosapien

<400> 30  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Asp Glu Thr Ile Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys  
 85 90 95  
 Ala Thr Asn Asp Phe Trp Ser Gly Tyr Phe Asp Cys Trp Asp Gln Gly  
 100 105 110  
 Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
 115 120 125  
 Pro Leu Ala Pro Cys Ser Arg Asn Thr Ser Glu Ser Thr Ala Ala Leu  
 130 135 140  
 Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
 145 150 155 160  
 Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala  
 165 170

<210> 31  
 <211> 490  
 <212> DNA  
 <213> Homosapien

<400> 31  
 gacatcgtga tgaccagtc tccagactcc ctggctgcgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagtc gagtgtttta tacaggcca acaataagaa ttatttagtt 120  
 tgggtaccagc aaaaaccagg acagcctcct aagctgctca ttactgggc atctatccgg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttatttct gtcagcaata ttatagttct 300  
 ccgtggacgt ttggccaagg gaccaagggt gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480  
 caatcgggta 490

<210> 32  
 <211> 163  
 <212> PRT  
 <213> Homosapien



<400> 32

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Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Ala Ser Leu Gly
 1           5           10           15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Arg
          20           25           30
Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln
          35           40           45
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val
          50           55           60
Pro Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65           70           75           80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Phe Cys Gln Gln
          85           90           95
Tyr Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
          100          105          110
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
          115          120          125
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
          130          135          140
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145          150          155          160
Gln Ser Gly
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<210> 33

<211> 545

<212> DNA

<213> Homosapien

<400> 33

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cagggtccagc tgggtacagtc tgggggctgag gtgaagaagc ctgggggcctc agtgaaggct 60
tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacctggtat 300
agtgggatct acttagcttt tgatatctgg ggccaaggga caatgggtcac cgtctcttca 360
gcctccacca agggcccacg ggtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagcgg ccttgggctg cctgggtcaag gactacttcc ccgaaccggt gacggtgtcg 480
tggaactcag gcgctctgac cagcggcgctg cacaccttcc cagctgtcct acagtcctca 540
ggatt 545
```

<210> 34

<211> 181

<212> PRT

<213> Homosapien

<400> 34

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1           5           10           15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
          20           25           30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
          35           40           45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
          50           55           60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
```

65		70		75		80									
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90						95	
Ala	Thr	Trp	Tyr	Ser	Gly	Ile	Tyr	Leu	Ala	Phe	Asp	Ile	Trp	Gly	Gln
			100					105					110		
Gly	Thr	Met	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val
		115					120					125			
Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala
		130				135					140				
Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser
145					150					155					160
Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val
			165					170						175	
Leu	Gln	Ser	Ser	Gly											
			180												

<210> 35  
 <211> 472  
 <212> DNA  
 <213> Homosapien

<400> 35  
 gaaattgtgc tgactcagtc tccagacttt cagtctgtga ctccaaagga gaaagtcacc 60  
 atcacctgcc gggccagtc gagcattggt agtagcttac actggtacca gcagaaacca 120  
 gatcagtctc caaagctcct catcaagtat gcttcccagt ccttctcagg ggtcccctcg 180  
 aggttcagtg gcagtggatc tgggacagat ttcaccctca ccatcaatag cctggaagct 240  
 gaagatgctg caacgtatta ctgtcatcag agtagtagtt tacctcacac tttcggcgga 300  
 gggaccaagg tggagatcaa acgaactgtg gctgcacat ctgtcttcat cttcccgcca 360  
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gctgctgaa taacttctat 420  
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg ta 472

<210> 36  
 <211> 157  
 <212> PRT  
 <213> Homosapien

<400> 36  
 Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys  
 1 5 10 15  
 Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser  
 20 25 30  
 Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile  
 35 40 45  
 Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala  
 65 70 75 80  
 Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro His  
 85 90 95  
 Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala  
 100 105 110  
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly  
 115 120 125  
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala  
 130 135 140  
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly

145

150

155

<210> 37  
 <211> 1335  
 <212> DNA  
 <213> Homosapien

<400> 37  
 caggtccagt tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60  
 tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcagtatg accgaggaca catccacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt atttctgtgc aaccaacgaa 300  
 ttttgagtg gttattttga ctactggggc cagggaaccc tgggtcaccgt ctccctcagcc 360  
 tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420  
 acagcggccc tgggctgctt ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480  
 aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540  
 ctctactccc tcagcagcgt ggtgaccgtg ccctccagca acttcggcac ccagacctac 600  
 acctgcaacg tagatcacia gccccagcaac accaagggtg acaagacagt tgagcgcaaa 660  
 tggtgtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc 720  
 ttccccccaa aaccaagga caccctcatg atctcccga cccctgaggt cacgtgcgtg 780  
 gtggtggacg tgagccacga agaccccag gtccagttca actggtacgt ggacggcgtg 840  
 gaggtgcata atgccaaagc aaagccacgg gaggagcagt tcaacagcac gttccgtgtg 900  
 gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgcagg 960  
 gtctccaaca aaggcctccc agcccccatc gagaaaacca tctccaaaac caaagggcag 1020  
 ccccgagaac cacagggtga caccctgccc ccatcccggg aggagatgac caagaaccag 1080  
 gtcagcctga cctgcctggt caaaggcttc taccccagcg acatcgccgt ggagtgggag 1140  
 agcaatgggc agccggagaa caactacaag accacacctc ccatgctgga ctccgacggc 1200  
 tccttcttcc tctacagcaa gctcaccgtg gacaagagca ggtggcagca ggggaacgtc 1260  
 ttctcatgct ccgtgatgca tgaggctctg cacaaccact acacgcagaa gagcctctcc 1320  
 ctgtctccgg gtaaa 1335

<210> 38  
 <211> 445  
 <212> PRT  
 <213> Homosapien

<400> 38  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Ser Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Phe Cys  
 85 90 95  
 Ala Thr Asn Glu Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly  
 100 105 110  
 Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
 115 120 125  
 Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
 130 135 140

Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp
145					150					155					160
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu
				165					170						175
Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser
			180					185						190	
Ser	Asn	Phe	Gly	Thr	Gln	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys	Pro
		195					200					205			
Ser	Asn	Thr	Lys	Val	Asp	Lys	Thr	Val	Glu	Arg	Lys	Cys	Cys	Val	Glu
	210					215					220				
Cys	Pro	Pro	Cys	Pro	Ala	Pro	Pro	Val	Ala	Gly	Pro	Ser	Val	Phe	Leu
225					230					235					240
Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr	Pro	Glu
			245						250						255
Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	Pro	Glu	Val	Gln
			260					265						270	
Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys	Thr	Lys
		275					280					285			
Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Phe	Arg	Val	Val	Ser	Val	Leu
	290					295					300				
Thr	Val	Val	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys	Cys	Lys
305					310					315					320
Val	Ser	Asn	Lys	Gly	Leu	Pro	Ala	Pro	Ile	Glu	Lys	Thr	Ile	Ser	Lys
			325						330						335
Thr	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser
			340					345					350		
Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys
	355						360					365			
Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln
	370					375					380				
Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Met	Leu	Asp	Ser	Asp	Gly
385					390					395					400
Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln
			405						410					415	
Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn
			420					425					430		
His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly	Lys			
	435						440					445			

<210> 39

<211> 660

<212> DNA

<213> Homosapien

<400> 39

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gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctggggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacagctcca acaataagaa ctatttagtt 120
tggtaccagc agagaccagg acagcctcct aagctgctca tttactgggc atctaccggg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata tttttattct 300
ccgtggacgt tcggccaagg gaccaaggta gaaatcaaac gaactgtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttggtgtg 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtga taacgccttc 480
caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540
ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600
gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

```

<210> 40  
 <211> 220  
 <212> PRT  
 <213> Homosapien

<400> 40  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Arg Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Phe Tyr Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
 145 150 155 160  
 Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp  
 165 170 175  
 Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr  
 180 185 190  
 Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser  
 195 200 205  
 Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys  
 210 215 220

<210> 41  
 <211> 556  
 <212> DNA  
 <213> Homosapien

<400> 41  
 caggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60  
 tcctgcaagg tttccggaca cattttcact gaattatcca tacactgggt gcgacaggct 120  
 cctggaaaag ggctcgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagtctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aaccaacgat 300  
 ttttggagtg gttattttga ctactggggc cagggaaacc tggtcaccgt ctccctcagcc 360  
 tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420  
 acagcgcccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
 aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540  
 ctctactccc tcagca 556

<210> 42  
 <211> 185

<212> PRT  
 <213> Homosapien

<400> 42

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1           5           10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly His Ile Phe Thr Glu Leu
          20          25          30
Ser Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
          35          40          45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
          50          55          60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Val Tyr
65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
          85          90          95
Ala Thr Asn Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly
          100         105         110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
          115         120         125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
          130         135         140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145         150         155         160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
          165         170         175
Gln Ser Ser Gly Leu Tyr Ser Leu Ser
          180         185
```

<210> 43  
 <211> 490  
 <212> DNA  
 <213> Homosapien

<400> 43

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gacatcgtga tgaccagtc tccaggctcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtatttta ttcagggtcca acaataagaa ctatttaact 120
tggtaccagc agaaaccagg acagcctcct aaactgctca tttactgggc atctatccgg 180
gaatccgggg tccctgatcg attcagtggc agcgggtctg ggtcaaattt cactctcacc 240
atcaccagcc tgcaggctga agatgtggca atttattact gtcagcaata ttatagtagt 300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480
caatcgggta                                     490
```

<210> 44  
 <211> 163  
 <212> PRT  
 <213> Homosapien

<400> 44

```
Asp Ile Val Met Thr Gln Ser Pro Gly Ser Leu Ala Val Ser Leu Gly
 1           5           10          15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Ile Leu Phe Arg
          20          25          30
Ser Asn Asn Lys Asn Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln
```







<213> Homosapien

<400> 49

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caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60
tcctgcaagg ttcccgata caccctcact gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt ttgatcctg aagatgatga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaca cacagcctac 240
atggaactga gcagcctgag atctgaggac acggccgtgt attactgtgc aacacacgat 300
ttttggagtg cttatcttta ctactggggc cagggaaacc tggtcaccgt ctccctcagct 360
tccaccaagg gcccatccgt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420
acagccgccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtc 476
```

<210> 50

<211> 158

<212> PRT

<213> Homosapien

<400> 50

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1          5          10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20          25          30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35          40          45
Gly Gly Phe Asp Pro Glu Asp Asp Glu Thr Ile Tyr Ala Gln Lys Phe
 50          55          60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr His Thr Ala Tyr
 65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85          90          95
Ala Thr His Asp Phe Trp Ser Ala Tyr Phe Tyr Tyr Trp Gly Gln Gly
100          105          110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145          150          155
```

<210> 51

<211> 490

<212> DNA

<213> Homosapien

<400> 51

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gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgcttta tacggctcca acaataagag ctacttagct 120
tggtagcagc agaaaccagg acagcctcct aagctgctca ttactgggc atctaccggg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctgc agatgtggca gtttattact gtcagcaaca ttatagtact 300
ccgtgcagtt ttggccaggg gaccaaactg gagatcaaac gaactgtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480
caatcgggta                                     490
```

<210> 52

<211> 163  
 <212> PRT  
 <213> Homosapien

<400> 52  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Gly  
 20 25 30  
 Ser Asn Asn Lys Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Ala Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 His Tyr Ser Thr Pro Cys Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
 145 150 155 160  
 Gln Ser Gly

<210> 53  
 <211> 550  
 <212> DNA  
 <213> Homosapien

<400> 53  
 caggtgcagc tgggtgcagtc tggggctgag gtgaagaagc ctggggcctc agtgaagggtc 60  
 tcttgcaagg cttctggata caccttcacc ggctactatc tgcactgggt gcgacaggcc 120  
 cctggacaag ggcttgagtg gatgggatgg atcaaccctt acaatgatgg cacaaactat 180  
 gcacagaagt ttcagggcag ggtcaccatg accagggaca cgtccatcag cacagcctac 240  
 atggagctga gcaggctgag atctgacgac acggccgttt attactgtgc gagagatata 300  
 gccgcagctg gagccgtcta ctttgactac tggggccagg gaaccctggc caccgtctcc 360  
 tcagcttcca ccaagggccc atccgtcttc cccctggcgc cctgctccag gagcacctcc 420  
 gagagcacag ccgcccctggg ctgcctgggc aaggactact ttccccgaac cggtgacggt 480  
 gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc ttcccggctg tctacagtc 540  
 ctcaggactt 550

<210> 54  
 <211> 183  
 <212> PRT  
 <213> Homosapien

<400> 54  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Tyr  
 20 25 30  
 Tyr Leu His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met



115	120	125
Thr Ala Ser Val Val Cys	Leu Leu Asn Asn Phe	Tyr Pro Arg Glu Ala
130	135	140
Lys Val Gln Gly Arg Trp	Ile Thr	
145	150	

<210> 57  
 <211> 571  
 <212> DNA  
 <213> Homosapien

<400> 57  
 caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60  
 tcctgcaagg ttcccgata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagt gatgggaggt ttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcatgat accgaggaca catctacaga cacagccttc 240  
 atggacctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacagacgat 300  
 atgttgaccc ctactacct ctacttcggt atggacgtct ggggccaaagg gaccacggctc 360  
 accgtctcct cagcttccac caagggccca tccgtcttcc ccctggcgcc ctgctccagg 420  
 agcacctccg agagcacagc cgccttgggc tgctgtgtca aggactactt cccgaaccg 480  
 gtgacgggtgt cgtggaactc aggcgcctg accagcggcg tgcacacctt cccggctgtc 540  
 ctacagtct caggactcta ctccctcagc a 571

<210> 58  
 <211> 190  
 <212> PRT  
 <213> Homosapien

<400> 58  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Met Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Phe  
 65 70 75 80  
 Met Asp Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Thr Asp Asp Met Leu Thr Pro His Tyr Leu Tyr Phe Gly Met Asp  
 100 105 110  
 Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys  
 115 120 125  
 Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu  
 130 135 140  
 Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro  
 145 150 155 160  
 Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr  
 165 170 175  
 Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser  
 180 185 190

<210> 59

<211> 458  
 <212> DNA  
 <213> Homosapien

<400> 59  
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60  
 atcacttgcc gggcaagtca gggcattaga aatgatttag gctgggtatca gcagaaacca 120  
 gggaaagccc ctaagcgctt gatctatgct acatccagtt tgcaaagtgg ggtcccatca 180  
 aggttcagcg gcagtggatc tgggacagaa ttcaactctca caatcagcag cctgcagcct 240  
 gaagattttg caacttatta ctgtctacag cataatactt acccattcac tttcggccct 300  
 gggaccaaaag tggatatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 360  
 tctgatgagc agttgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taacttctat 420  
 cccagagagc ccaaagtaca gtggaaggtg gataacgc 458

<210> 60  
 <211> 152  
 <212> PRT  
 <213> Homosapien

<400> 60  
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
 1 5 10 15  
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp  
 20 25 30  
 Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile  
 35 40 45  
 Tyr Ala Thr Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro  
 65 70 75 80  
 Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Thr Tyr Pro Phe  
 85 90 95  
 Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala  
 100 105 110  
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly  
 115 120 125  
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala  
 130 135 140  
 Lys Val Gln Trp Lys Val Asp Asn  
 145 150

<210> 61  
 <211> 1338  
 <212> DNA  
 <213> Homosapien

<400> 61  
 cagggtgcagc tgcaggagtc gggcccagga ctgggtgaagc cttcacagac cctgtccctc 60  
 acctgcactg tctcagggtg ctccatcagc agtgggtggta actactggaa ctggatccgc 120  
 cagcaccagc ggaagggcct ggagtggatt gggtagatct attacagtgg aaacacctac 180  
 tacaaccgct cctcaagag tcgaattacc atatcaatag acacgtctaa gaaccagttc 240  
 tccctgaccc tgagctctgt gactgccgcg gacacggccg tgtattactg tgcgagagat 300  
 ggtggagacg atgcttttga tatctggggc caagggacaa tggtcaccgt ctcttcagct 360  
 tccaccaagg gcccatccgt cttccccctg gcgcctgtgt ccaggagcac ctccgagagc 420  
 acagcgcgcc tgggtgcctt ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480  
 aactcaggcg ccttgaccag cggcgtgcac accttccccg ctgtcctaca gtccctcagga 540

```

ctctactccc tcagcagcgt ggtgaccgtg cctccagca gcttgggcac gaagacctac 600
acctgcaacg tagatcacia gccagcaac accaagggtg acaagagagt tgagtccaaa 660
tatggtcccc catgccatc atgccagca cctgagttcc tggggggacc atcagtcttc 720
ctgttcccc caaaaccaa ggacactctc atgatctccc ggacctctga ggtcacgtgc 780
gtggtggtgg acgtgagcca ggaagacccc gaggtccagt tcaactggta cgtggatggc 840
gtggaggtgc ataatgcaa gacaaagccg cgggaggagc agttcaacag cacgtaccgt 900
gtggtcagcg tcttcaccgt cctgcaccag gactggctga acggcaagga gtacaagtgc 960
aaggtctcca acaaaggcct cccgtcctcc atcgagaaaa ccatctccaa agccaaaggg 1020
cagccccgag agccacaggt gtacaccctg ccccatccc aggaggagat gaccaagaac 1080
caggtcagcc tgacctgctt ggtcaaaggc ttctacccca gcgacatcgc cgtggagtgg 1140
gagagcaatg ggcagccgga gaacaactac aagaccacgc ctcccgtgct ggactccgac 1200
ggctccttct tctctacag caggctaacc gtggacaaga gcaggtggca ggaggggaat 1260
gtcttctcat gtcctgtgat gcatgaggct ctgcacaacc actacacaca gaagagcctc 1320
tccctgtctc tgggtaaa 1338

```

<210> 62

<211> 446

<212> PRT

<213> Homosapien

<400> 62

```

Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
1          5          10          15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
20          25          30
Gly Asn Tyr Trp Asn Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
35          40          45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Asn Thr Tyr Tyr Asn Pro Ser
50          55          60
Leu Lys Ser Arg Ile Thr Ile Ser Ile Asp Thr Ser Lys Asn Gln Phe
65          70          75          80
Ser Leu Thr Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
85          90          95
Cys Ala Arg Asp Gly Gly Asp Asp Ala Phe Asp Ile Trp Gly Gln Gly
100          105          110
Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145          150          155          160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
165          170          175
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
180          185          190
Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys Pro
195          200          205
Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro Pro
210          215          220
Cys Pro Ser Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val Phe
225          230          235          240
Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
245          250          255
Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val
260          265          270
Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
275          280          285

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Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val  
 290 295 300  
 Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys  
 305 310 315 320  
 Lys Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser  
 325 330 335  
 Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro  
 340 345 350  
 Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val  
 355 360 365  
 Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly  
 370 375 380  
 Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp  
 385 390 395 400  
 Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser Arg Trp  
 405 410 415  
 Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His  
 420 425 430  
 Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys  
 435 440 445

<210> 63  
 <211> 642  
 <212> DNA  
 <213> Homosapien

<400> 63  
 gacatccaga tgacccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60  
 atcacttgcc aggcgagtcg ggacatttagc aactattttaa attgggtatca gcagaaacca 120  
 gggaaagccc ctaaactcct gatctacgat gcatccaatt tggaaacagg ggtcccatca 180  
 aggttcagtg gaagtggatc tgggacagat tttactttca ccatcaacag cctgcagcct 240  
 gaagatattg caacatatta ctgtcaagaa tataataatc tcccgtacag ttttggccag 300  
 gggaccaagt tggagatcaa acgaactgtg gctgcacat ctgtcttcat cttcccgcca 360  
 tctgatgagc agttgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taacttctat 420  
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480  
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540  
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600  
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 64  
 <211> 214  
 <212> PRT  
 <213> Homosapien

<400> 64  
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
 1 5 10 15  
 Asp Arg Val Thr Ile Thr Cys Gln Ala Ser Gln Asp Ile Ser Asn Tyr  
 20 25 30  
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile  
 35 40 45  
 Tyr Asp Ala Ser Asn Leu Glu Thr Gly Val Pro Ser Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Asn Ser Leu Gln Pro  
 65 70 75 80  
 Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Glu Tyr Asn Asn Leu Pro Tyr





Ser	Val	Gln	Val	Ser	Cys	Lys	Val	Ser	Gly	Asp	Thr	Leu	Thr	Glu	Leu
			20						25					30	
Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
		35					40					45			
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ile	Tyr	Ala	Arg	Lys	Phe
	50					55					60				
Gln	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Val	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Phe	Cys
				85					90					95	
Ala	Thr	Asp	Ser	Arg	Gly	Tyr	Ser	Gly	Tyr	Phe	Asp	Asn	Trp	Gly	Gln
			100					105					110		
Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val
		115					120					125			
Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala
	130					135					140				
Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser
145					150					155					160
Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val
				165					170					175	
Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro
			180					185					190		
Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His	Lys
	195					200						205			
Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	Lys	Tyr	Gly	Pro
	210					215					220				
Pro	Cys	Pro	Ser	Cys	Pro	Ala	Pro	Glu	Phe	Leu	Gly	Gly	Pro	Ser	Val
225					230					235					240
Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg	Thr
				245					250					255	
Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp	Pro	Glu
			260					265					270		
Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala	Lys
		275					280					285			
Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	Arg	Val	Val	Ser
	290					295					300				
Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr	Lys
305					310					315					320
Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile
				325					330					335	
Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro
		340						345					350		
Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu
		355					360					365			
Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn
	370					375					380				
Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser
385					390					395					400
Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg
				405					410					415	
Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu
			420					425					430		
His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly	Lys	
		435					440					445			

<210> 67

<211> 660  
 <212> DNA  
 <213> Homosapien

<400> 67  
 gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagtgtttta tacagctcca acaataacaa ctacttagtt 120  
 tgggtaccagc agaaaccagg acagcctcct aaattgctca tttactgggc atctaccggg 180  
 gaattcgggg ttcttgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatTTTTct 300  
 ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480  
 caatcgggta actcccagga gagtgtcaca gagcaggaca gcaaggacag cacctacagc 540  
 ctcagcagca ccctgacgct gagcaaagca gactacgaga aacacaaagt ctacgcctgc 600  
 gaagtcaccc atcagggcct gagctcgccc gtcacaaaga gcttcaacag gggagagtgt 660

<210> 68  
 <211> 220  
 <212> PRT  
 <213> Homosapien

<400> 68  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Ser Asn Asn Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Phe Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Phe Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
 145 150 155 160  
 Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp  
 165 170 175  
 Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr  
 180 185 190  
 Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser  
 195 200 205  
 Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys  
 210 215 220

<210> 69  
 <211> 556  
 <212> DNA

<213> Homosapien

<400> 69

```
caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60
tcctgcaagg ttcccgata caccctcact gatttatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catcttcaga cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacccacgaa 300
ttttggagtg gttattttga ctactggggc cagggaaacc tggtcaccgt ctccctcagct 360
tccaccaagg gcccatccgt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420
acagccgccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtccctcagga 540
ctctactccc tcagca 556
```

<210> 70

<211> 185

<212> PRT

<213> Homosapien

<400> 70

```
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1          5          10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Asp Leu
 20          25          30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35          40          45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50          55          60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Ser Asp Thr Ala Tyr
 65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85          90          95
Ala Thr His Glu Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly
100          105          110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145          150          155          160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
165          170          175
Gln Ser Ser Gly Leu Tyr Ser Leu Ser
180          185
```

<210> 71

<211> 476

<212> DNA

<213> Homosapien

<400> 71

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gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gactgtttta ttcagctcca acaataagag ctacttaact 120
tggtaccagc agaaaccagg acagcctcct aaattactca tttctgggc atctatccgg 180
gaatccgggg tccctgaccg aatcagtggc agcgggtctg ggacagatct cactctcacc 240
atcagcagcc tgcaggctga agatgcggca gtttattact gtcagcaata ttatagtagt 300
```

```

ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgc 476

```

```

<210> 72
<211> 158
<212> PRT
<213> Homosapien

```

```

<400> 72
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
1          5          10          15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Phe Ser
20        25        30
Ser Asn Asn Lys Ser Tyr Leu Thr Trp Tyr Gln Gln Lys Pro Gly Gln
35        40        45
Pro Pro Lys Leu Leu Ile Phe Trp Ala Ser Ile Arg Glu Ser Gly Val
50        55        60
Pro Asp Arg Ile Ser Gly Ser Gly Ser Gly Thr Asp Leu Thr Leu Thr
65        70        75        80
Ile Ser Ser Leu Gln Ala Glu Asp Ala Ala Val Tyr Tyr Cys Gln Gln
85        90        95
Tyr Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100       105       110
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115       120       125
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130       135       140
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
145       150       155

```

```

<210> 73
<211> 546
<212> DNA
<213> Homosapien

```

```

<400> 73
caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60
tcctgcaagg ttcccgata caccctcagt gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt ttgatcctg aagatgggtg aataatccac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacaggcgat 300
ttttggagtg gttattacct tgactggtgg ggccagggaa ccctggtcac cgtctcctca 360
gcttccacca agggcccatc cgtcttcccc ctggcgccct gctccaggag cacctccgag 420
agcacagccg ccctgggctg cctggtcaag gactacttcc ccgaaccggt gacggtgtcg 480
tggaaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca 540
ggactt
546

```

```

<210> 74
<211> 182
<212> PRT
<213> Homosapien

```

```

<400> 74
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1          5          10          15

```



Phe	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Asn	Arg	Thr	Val	Ala
			100					105					110		
Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu	Gln	Leu	Lys	Ser
		115					120					125			
Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu
	130					135					140				
Ala	Lys	Val	Gln	Trp	Glu	Gly	Gly								
145						150									

<210> 77  
 <211> 470  
 <212> DNA  
 <213> Homosapien

<400> 77  
 caggtccagc tggtagagtc tggggctgag gtgaagaagc ctgggggcctc agtgaagggtc 60  
 tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacagggt 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatgtac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aaccgacgat 300  
 ttttgagtg gttattttga ctactggggc caggggaacc tggtcaccgt ctccctcagcc 360  
 tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420  
 acagcgcccc tgggctgcct ggtcaaggac tacttccccg aaccggcagg 470

<210> 78  
 <211> 156  
 <212> PRT  
 <213> Homosapien

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Leu	Thr	Glu	Leu
			20					25					30		
Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
		35					40					45			
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Met	Tyr	Ala	Gln	Lys	Phe
	50					55				60					
Gln	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr
65					70				75					80	
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Ala	Thr	Asp	Asp	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly
		100					105						110		
Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe
	115						120					125			
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu
	130					135					140				
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Ala				
145					150					155					

<210> 79  
 <211> 490  
 <212> DNA  
 <213> Homosapien

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<400> 79
gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctggacga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacagtccca accaaaagaa ctacttagtt 120
tggtatcagc agaagccagg acagcctcct aagctgctcc ttactgggc atctatccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcaacaaaag ttattttact 300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccctc 480
caatcgggta                                     490

```

```

<210> 80
<211> 163
<212> PRT
<213> Homosapien

```

```

<400> 80
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Asp
 1           5           10           15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
          20           25           30
Pro Asn Gln Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln
          35           40           45
Pro Pro Lys Leu Leu Leu Tyr Trp Ala Ser Ile Arg Glu Ser Gly Val
          50           55           60
Pro Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
65           70           75           80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
          85           90           95
Ser Tyr Phe Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
          100          105          110
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
          115          120          125
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
          130          135          140
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145          150          155          160
Gln Ser Gly

```

```

<210> 81
<211> 556
<212> DNA
<213> Homosapien

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<400> 81
cagggtccagc tgggtacagtc tggggctgag gtgaagaagc ctgggggcctc agtgaaggtc 60
tcctgcaagg tttccggata caccctcagt gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt ttgatcctg aagatgatga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagccttc 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aaccacgat 300
ttttggagtg gttattttca ctactggggc cagggaaacc tggtcaccgt ctctcagct 360
tcaccaagg gccatccgt ctccccctg gcgccctgct ccaggagcac ctccgagagc 420
acagccgccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg cctgaccag cggcgtgcac accttcccg ctgtcctaca gtcctcagga 540

```

ctctactccc tcagca

556

<210> 82  
<211> 185  
<212> PRT  
<213> Homosapien

<400> 82  
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15  
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Ser Glu Leu  
20 25 30  
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
35 40 45  
Gly Gly Phe Asp Pro Glu Asp Asp Glu Thr Ile Tyr Ala Gln Lys Phe  
50 55 60  
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Phe  
65 70 75 80  
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95  
Ala Thr His Asp Phe Trp Ser Gly Tyr Phe His Tyr Trp Gly Gln Gly  
100 105 110  
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
115 120 125  
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
130 135 140  
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
145 150 155 160  
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu  
165 170 175  
Gln Ser Ser Gly Leu Tyr Ser Leu Ser  
180 185

<210> 83  
<211> 476  
<212> DNA  
<213> Homosapien

<400> 83  
gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
atcaactgca agtccagcca gagtgtttta tacagctccg acaataagag ctacttagtt 120  
tggtaccagc agaaaccagg acagcctcct aaggtgctca tttactgggc atctattcgg 180  
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatactagt 300  
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgc 476

<210> 84  
<211> 158  
<212> PRT  
<213> Homosapien

<400> 84  
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
1 5 10 15



Glu	Arg	Ala	Thr	Ile	Asn	Cys	Lys	Ser	Ser	Gln	Ser	Val	Leu	Tyr	Ser
			20					25					30		
Ser	Asp	Asn	Lys	Ser	Tyr	Leu	Val	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln
		35					40					45			
Pro	Pro	Lys	Val	Leu	Ile	Tyr	Trp	Ala	Ser	Ile	Arg	Glu	Ser	Gly	Val
		50				55					60				
Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr
65					70					75					80
Ile	Ser	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Tyr	Cys	Gln	Gln
			85						90					95	
Tyr	Tyr	Thr	Ser	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile
		100						105					110		
Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp
		115					120					125			
Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn
	130					135					140				
Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn		
145					150					155					

<210> 85  
 <211> 543  
 <212> DNA  
 <213> Homosapien

<400> 85  
 cagggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60  
 tctgtgaagg ttcccgata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt ttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aatccacgag 300  
 ttttgagtg gttattttga ctactggggc cagggaaccc tggtcaccgt ctcttcagct 360  
 tccaccaagg gcccatccgt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420  
 acagccgcc tgggctgcct ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480  
 aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtcctcagga 540  
 ctt 543

<210> 86  
 <211> 181  
 <212> PRT  
 <213> Homosapien

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ala
1				5					10					15	
Ser	Val	Lys	Val	Ser	Cys	Lys	Val	Ser	Gly	Tyr	Thr	Leu	Thr	Glu	Leu
		20						25					30		
Ser	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Met
		35					40					45			
Gly	Gly	Phe	Asp	Pro	Glu	Asp	Gly	Glu	Thr	Ile	Tyr	Ala	Gln	Lys	Phe
	50					55				60					
Gln	Gly	Arg	Val	Thr	Met	Thr	Glu	Asp	Thr	Ser	Thr	Asp	Thr	Ala	Tyr
65					70				75						80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Ala	Ile	His	Glu	Phe	Trp	Ser	Gly	Tyr	Phe	Asp	Tyr	Trp	Gly	Gln	Gly
		100					105						110		

Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe
	115						120					125			
Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu
	130					135					140				
Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp
145				150					155					160	
Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu
			165					170						175	
Gln	Ser	Ser	Gly	Leu											
			180												

<210> 87  
 <211> 477  
 <212> DNA  
 <213> Homosapien

<400> 87  
 gacatcgtga tgaccacgtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcct gagtggttta tacagctcca acaataagaa ctatttagtt 120  
 tggtagcttc agaaaccagg acagcctcct aagttgtctca ttactgggc atctaccgg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggccga agatgtggca gtttattact gtcagcaata ttatagttct 300  
 ccgtggacgt tccggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgcc 477

<210> 88  
 <211> 159  
 <212> PRT  
 <213> Homosapien

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Asp	Ser	Leu	Ala	Val	Ser	Leu	Gly
1				5				10					15		
Glu	Arg	Ala	Thr	Ile	Asn	Cys	Lys	Ser	Ser	Leu	Ser	Val	Leu	Tyr	Ser
			20				25					30			
Ser	Asn	Asn	Lys	Asn	Tyr	Leu	Val	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln
			35			40					45				
Pro	Pro	Lys	Leu	Leu	Ile	Tyr	Trp	Ala	Ser	Thr	Arg	Glu	Ser	Gly	Val
		50			55					60					
Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr
65				70					75					80	
Ile	Ser	Ser	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Tyr	Cys	Gln	Gln
			85					90					95		
Tyr	Tyr	Ser	Ser	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile
			100					105					110		
Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp
		115				120					125				
Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn
	130				135					140					
Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	
145				150					155						

<210> 89  
 <211> 1335

<212> DNA

<213> Homosapien

<400> 89

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caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60
tcctgcaagg ttcccgata caccctcact gaattatcca tgcactgggt gcgacagact 120
cctggaaaag ggcttgagtg gatgggaggt ttgatcctg aagatgggtga aacaatctac 180
gcacagaagt tccaggacag agtcaccatg accgaggaca catctacaga cacagcctac 240
atggaactga gcagcctgag atctgaggac acggccgtgt attactgtgc aacaaacgat 300
ttttggactg gttattatga ctactggggc cagggaaccc tggtcaccgt ctccctcagcc 360
tccaccaagg gcccatcggt ctccccctg gcgccctgct ccaggagcac ctccgagagc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540
ctctactccc tcagcagcgt ggtgaccgtg cccctccagca acttcggcac ccagacctac 600
acctgcaacg tagatcaciaa gcccagcaac accaagggtgg acaagacagt tgagcgcaaa 660
tggtgtgtcg agtgcccacc gtgcccagca ccacctgtgg caggaccgtc agtcttcctc 720
ttcccccaa aacccaagga caccctcatg atctcccga cccctgaggt cacgtgcgtg 780
gtggtggacg tgagccacga agaccccag gtccagttca actggtacgt ggacggcgtg 840
gaggtgcata atgccaagac aaagccacgg gaggagcagt tcaacagcac gttccgtgtg 900
gtcagcgtcc tcaccgttgt gcaccaggac tggctgaacg gcaaggagta caagtgaag 960
gtctccaaca aaggcctccc agcccccatc gagaaaacca tctccaaaac caaagggcag 1020
ccccgagaac cacaggtgta caccctgcc ccatcccggg aggagatgac caagaaccag 1080
gtcagcctga cctgcctggt caaaggcttc taccccagcg acatcgccgt ggagtgggag 1140
agcaatgggc agccggagaa caactacaag accacacctc ccatgctgga ctccgacggc 1200
tccttcttcc tctacagcaa gctcaccgtg gacaagagca ggtggcagca ggggaacgtc 1260
ttctcatgct ccgtgatgca tgaggctctg cacaaccact acacgcagaa gagcctctcc 1320
ctgtctccgg gtaaa 1335
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<210> 90

<211> 445

<212> PRT

<213> Homosapien

<400> 90

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Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1          5          10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20          25          30
Ser Met His Trp Val Arg Gln Thr Pro Gly Lys Gly Leu Glu Trp Met
 35          40          45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50          55          60
Gln Asp Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
 65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85          90          95
Ala Thr Asn Asp Phe Trp Thr Gly Tyr Tyr Asp Tyr Trp Gly Gln Gly
 100          105          110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
 115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
 130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
 145          150          155          160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
 165          170          175
Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
```



<213> Homosapien

<400> 92

```
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1           5           10           15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20           25           30
Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln
 35           40           45
Pro Pro Lys Thr Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
 50           55           60
Pro Asp Arg Phe Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 65           70           75           80
Ile Ser Ser Leu Gln Ala Glu Asp Val Gly Val Tyr Tyr Cys Gln Gln
 85           90           95
Tyr Tyr Thr Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
 100          105          110
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
 115          120          125
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
 130          135          140
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
 145          150          155          160
Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp
 165          170          175
Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr
 180          185          190
Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser
 195          200          205
Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 210          215          220
```

<210> 93

<211> 560

<212> DNA

<213> Homosapien

<400> 93

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cagggtgcagc tgcaggagtc gggcccagga ctggtgaagc cgtcacagac cctgtccctc 60
acctgcactg tctctggtgg ctccatcagc agtgggtggtt actactggag ctggatccgc 120
cagcaccagc ggaagggcct ggagtggatt gggtagatct attacagtgg gagcacctac 180
tacaaccagt ccctcaagag tcgagttatc atatcagtag acacgtctaa gaaccagttc 240
tccctgaagc tgacctctgt gactgccgcg gacacggccg tgtattactg tgcgagatca 300
tatagcagct cgtccccact ggttcgaccc ctggggccag ggaaccctgg tcaccgtctc 360
ctcagcttcc accaagggcc catccgtctt cccctggcg cctgctcca ggagcacctc 420
cgagagcaca gccgccctgg gctgcctggt caaggactac ttccccgaac cggtagcggc 480
gtcgtggaac tcaggcgccc tgaccagcgg cgtgcacacc ttcccggtg tcctacagtc 540
ctcaggactc tactccctca                                     560
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<210> 94

<211> 186

<212> PRT

<213> Homosapien

<400> 94

```
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
```

1				5					10					15				
Thr	Leu	Ser	Leu	Thr	Cys	Thr	Val	Ser	Gly	Gly	Ser	Ile	Ser	Ser	Gly			
			20					25					30					
Gly	Tyr	Tyr	Trp	Ser	Trp	Ile	Arg	Gln	His	Pro	Gly	Lys	Gly	Leu	Glu			
		35				40						45						
Trp	Ile	Gly	Tyr	Ile	Tyr	Tyr	Ser	Gly	Ser	Thr	Tyr	Tyr	Asn	Pro	Ser			
	50				55						60							
Leu	Lys	Ser	Arg	Val	Ile	Ile	Ser	Val	Asp	Thr	Ser	Lys	Asn	Gln	Phe			
65				70					75						80			
Ser	Leu	Lys	Leu	Thr	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr			
			85					90						95				
Cys	Ala	Arg	Ser	Tyr	Ser	Ser	Ser	Ser	Pro	Leu	Val	Arg	Pro	Leu	Gly			
			100					105					110					
Pro	Gly	Asn	Pro	Gly	His	Arg	Leu	Leu	Ser	Phe	His	Gln	Gly	Pro	Ile			
		115					120					125						
Arg	Leu	Pro	Pro	Gly	Ala	Leu	Leu	Gln	Glu	His	Leu	Arg	Glu	His	Ser			
	130					135					140							
Arg	Pro	Gly	Leu	Pro	Gly	Gln	Gly	Leu	Leu	Pro	Arg	Thr	Gly	Asp	Gly			
145					150					155					160			
Val	Val	Glu	Leu	Arg	Arg	Pro	Asp	Gln	Arg	Arg	Ala	His	Leu	Pro	Gly			
			165					170						175				
Cys	Pro	Thr	Val	Leu	Arg	Thr	Leu	Leu	Pro									
			180					185										

<210> 95  
 <211> 458  
 <212> DNA  
 <213> Homosapien

<400> 95  
 gacatccaga tgaccagtc tccatcctcc ctgtctgcat ctgtaggaga cagagtcacc 60  
 atcacttgcc gggcaagtca gggcattaga aatgatttag gctggtatca gcagaaacca 120  
 gggaaagccc ctaagcgctt gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180  
 aggttcagcg gcagtggatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240  
 gaagattttg caacttatta ctgtctacag cataatagtt acccattcac tttcggccct 300  
 gggaccaaag tggatatcaa acgaactgtg gctgcaccat ctgtcttcat cttcccgcca 360  
 tctgatgagc agttgaaatc tgggaactgcc tctgttgtgt gcctgctgaa taacttctat 420  
 cccagagagg ccaaagtaca gtggaagggtg gataacgc 458

<210> 96  
 <211> 152  
 <212> PRT  
 <213> Homosapien

<400> 96  
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly  
 1 5 10 15  
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp  
 20 25 30  
 Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile  
 35 40 45  
 Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly  
 50 55 60  
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro  
 65 70 75 80  
 Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Phe

				85					90					95					
Thr	Phe	Gly	Pro	Gly	Thr	Lys	Val	Asp	Ile	Lys	Arg	Thr	Val	Ala	Ala				
			100					105					110						
Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly				
		115					120					125							
Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala				
	130					135					140								
Lys	Val	Gln	Trp	Lys	Val	Asp	Asn												
145					150														

<210> 97  
 <211> 559  
 <212> DNA  
 <213> Homosapien

<400> 97  
 cagggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60  
 tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacagatcgc 300  
 gagtttttga gtggttatatt ctaccactgg ggccaggga ccttggtcac cgtctcctca 360  
 gcctccacca agggcccatc ggtcttcccc ctggcgccct gctccaggag cacctccgag 420  
 agcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggg gacggtgtcg 480  
 tggaactcag gcgctctgac cagcggcggtg cacaccttcc cagctgtcct acagtcctca 540  
 ggactctact ccctcagca 559

<210> 98  
 <211> 186  
 <212> PRT  
 <213> Homosapien

<400> 98  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
 85 90 95  
 Ala Thr Asp Arg Glu Phe Trp Ser Gly Tyr Phe Tyr His Trp Gly Gln  
 100 105 110  
 Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val  
 115 120 125  
 Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala  
 130 135 140  
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser  
 145 150 155 160  
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val  
 165 170 175  
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser

180

185

<210> 99  
 <211> 491  
 <212> DNA  
 <213> Homosapien

<400> 99  
 gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60  
 atcaactgca agtccagcca gagtgtttta tacagctcca acaatgagaa cttcttagct 120  
 tgggtaccagc agaaaccagg acagcctcct aaactgctca ttactgggc atctaccgg 180  
 gaatccgggg tcccagaccg cttcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttataatagt 300  
 ccgtggacgt tccggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtga taacgcctcc 480  
 ccaatcgggt a 491

<210> 100  
 <211> 163  
 <212> PRT  
 <213> Homosapien

<400> 100  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Gln Ser Val Leu Tyr Ser  
 20 25 30  
 Ser Asn Asn Glu Asn Phe Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln  
 35 40 45  
 Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Asn Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Ser  
 145 150 155 160  
 Pro Ile Gly

<210> 101  
 <211> 543  
 <212> DNA  
 <213> Homosapien

<400> 101  
 caggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60  
 tcctgcaagg tttccggata caccctcact gaattatcca tgcaactgggt gcgacaggct 120



```

cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacggacgat 300
ttttggagtg gttattttga ctactggggc cagggaaacc tggtcaccgt ctccctcagcc 360
tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540
ctt
543

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<210> 102  
 <211> 181  
 <212> PRT  
 <213> Homosapien

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<400> 102
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1          5          10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu
 20          25          30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35          40          45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50          55          60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr
 65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85          90          95
Ala Thr Asp Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly
100          105          110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
145          150          155          160
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
165          170          175
Gln Ser Ser Gly Leu
180

```

<210> 103  
 <211> 491  
 <212> DNA  
 <213> Homosapien

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<400> 103
gacatcgtga tgaccacgctc tccagactcc ctggctgtgt ctctgggcca gagggccacc 60
atcaactgca agtccagtca gagtgtttta tacagggtcta acaataagag ctacttagtt 120
tggtagcagc agaaactagg acagtctcct aagctgctca tttactgggc atctaccggg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattatt gtcaacaata ttatagtact 300
ccgtggacgt tcggccaagg gaccaagggtg gaaatcaaac gaactgtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaagggtgga taacgccttc 480
ccaatcgggt a
491

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<210> 104  
 <211> 163  
 <212> PRT  
 <213> Homosapien

<400> 104  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Arg  
 20 25 30  
 Ser Asn Asn Lys Ser Tyr Leu Val Trp Tyr Gln Gln Lys Leu Gly Gln  
 35 40 45  
 Ser Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
 50 55 60  
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
 65 70 75 80  
 Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
 85 90 95  
 Tyr Tyr Ser Thr Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
 100 105 110  
 Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
 115 120 125  
 Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
 130 135 140  
 Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
 145 150 155 160  
 Pro Ile Gly

<210> 105  
 <211> 499  
 <212> DNA  
 <213> Homosapien

<400> 105  
 caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggctc 60  
 tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
 cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
 gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
 atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacagacgat 300  
 ttttggagtg gttatatttga ctactggggc cagggaaacc tggtcaccgt ctccctcagcc 360  
 tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420  
 acagcgcccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480  
 aactcaggcg ctctgacca 499

<210> 106  
 <211> 166  
 <212> PRT  
 <213> Homosapien

<400> 106  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met



130  
Phe Tyr Pro Arg Glu  
145

135

140

<210> 109  
<211> 540  
<212> DNA  
<213> Homosapien

<400> 109  
caggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60  
tctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 120  
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180  
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240  
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aacggacgat 300  
ttttggagtg gttattttga ctactggggc caggaaccc tggtcaccgt ctccctcagcc 360  
tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420  
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480  
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtccctcagga 540

<210> 110  
<211> 180  
<212> PRT  
<213> Homosapien

<400> 110  
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
1 5 10 15  
Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Thr Glu Leu  
20 25 30  
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
35 40 45  
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
50 55 60  
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
65 70 75 80  
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys  
85 90 95  
Ala Thr Asp Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly  
100 105 110  
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
115 120 125  
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
130 135 140  
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
145 150 155 160  
Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu  
165 170 175  
Gln Ser Ser Gly  
180

<210> 111  
<211> 478  
<212> DNA

<213> Homosapien

<400> 111

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gacatcgtga tgacccagtc tccagactcc ctggctgtgt ctctgggcga gagggccacc 60
atcaactgca agtccagcca gagtgtttta tacagctcca acaataagaa ctacttagct 120
tggtaccagc agaaaccagg acagcctcct aagctgctca tttactggac atctaccgg 180
gaatccgggg tccctgaccg attcagtggc agcgggtctg tgacagattt cactctcacc 240
atcagcagcc tgcaggctga agatgtggca gtttattact gtcagcaata ttatagttct 300
ccgtggacgt tcggccaagg gaccaaggtg gaaatcaaac gaactgtggc tgcaccatct 360
gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420
ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgcct 478
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<210> 112

<211> 159

<212> PRT

<213> Homosapien

<400> 112

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Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly
 1           5           10           15
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
 20           25           30
Ser Asn Asn Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 35           40           45
Pro Pro Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val
 50           55           60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Val Thr Asp Phe Thr Leu Thr
 65           70           75           80
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln
 85           90           95
Tyr Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
100           105           110
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115           120           125
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
130           135           140
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
145           150           155
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<210> 113

<211> 542

<212> DNA

<213> Homosapien

<400> 113

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caggtccagc tgggtacagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 60
tcctgcaagg tttccggata caccctcagt gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatgggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt tttactgtgc aacaaagagg 300
gaatatagtg gctactttga ctactggggc cagggaaccc tggtcaccgt ctctcagcc 360
tccaccaagg gcccatcggt ctccccctg gcgcctgtct ccaggagcac ctccgagagc 420
acagcgcccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ctctgaccag cggcgtgcac accttcccag ctgtcctaca gtcctcagga 540
ct 542
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<210> 114  
 <211> 180  
 <212> PRT  
 <213> Homosapien

<400> 114  
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala  
 1 5 10 15  
 Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr Leu Ser Glu Leu  
 20 25 30  
 Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met  
 35 40 45  
 Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe  
 50 55 60  
 Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Ala Tyr  
 65 70 75 80  
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Phe Tyr Cys  
 85 90 95  
 Ala Thr Lys Arg Glu Tyr Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly  
 100 105 110  
 Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
 115 120 125  
 Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu  
 130 135 140  
 Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp  
 145 150 155 160  
 Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu  
 165 170 175  
 Gln Ser Ser Gly  
 180

<210> 115  
 <211> 477  
 <212> DNA  
 <213> Homosapien

<400> 115  
 gacatcgtga tgaccagtc tccagactcc ctggctgtgt ctctgggcca gagggccacc 60  
 atcaactgca agtccagcca gagtggttta tacagctcca acagtaagaa ctacttagct 120  
 tgggtccagc agaaaccagg acagcctcct aagctgctca tttactgggc atctacccgg 180  
 gaatccgggg tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc 240  
 atcagccgcc tgcaggctga agatgtggca gtttattcct gtcagcaata ttttattact 300  
 ccgtggacgt tcggccaagg gaccaaggtg gaactcaaac gaactgtggc tgcaccatct 360  
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc 420  
 ctgctgaata acttctatcc cagagaggcc aaagtacagt ggaaggtgga taacgcc 477

<210> 116  
 <211> 159  
 <212> PRT  
 <213> Homosapien

<400> 116  
 Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
 1 5 10 15  
 Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser  
 20 25 30

Ser	Asn	Ser	Lys	Asn	Tyr	Leu	Ala	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Gln
	35						40					45			
Pro	Pro	Lys	Leu	Leu	Ile	Tyr	Trp	Ala	Ser	Thr	Arg	Glu	Ser	Gly	Val
	50					55					60				
Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr
65					70					75				80	
Ile	Ser	Arg	Leu	Gln	Ala	Glu	Asp	Val	Ala	Val	Tyr	Ser	Cys	Gln	Gln
			85						90					95	
Tyr	Phe	Ile	Thr	Pro	Trp	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Leu
		100						105					110		
Lys	Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp
		115					120					125			
Glu	Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn
	130					135					140				
Phe	Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	
145					150					155					

<210> 117  
 <211> 459  
 <212> DNA  
 <213> Homosapien

<400> 117  
 caggtgcagc ctgagcagtc ggggtccagga ctggtgaagc cctcgcagac cctctcactc 60  
 acctgtgcc tctccgggga cagtgtctct agcaacagtg ctgcttggaa ctggatcagg 120  
 cagtccccct cgagaggcct tgagtggctg ggaaggacat actacaggtc caagtggat 180  
 agtgatcatg cagtatctgt gagaagtcca ataaccatct acccagacac atccaagaac 240  
 cagttctccc tgcagctgaa ctctgtgact cccgaggaca cggctgtgta ttactgtgca 300  
 agagatcgga ttagtgggac ctatgtcggt atggacgtct ggggccaagg gaccacgggc 360  
 accgtctcct cagcctccac caagggccca tcggtcttcc cctggcgcc cctgctccag 420  
 gagcacctcc gagagcacag cggccctggg ctgcctggc 459

<210> 118  
 <211> 153  
 <212> PRT  
 <213> Homosapien

Gln	Val	Gln	Pro	Glu	Gln	Ser	Gly	Pro	Gly	Leu	Val	Lys	Pro	Ser	Gln
1				5					10					15	
Thr	Leu	Ser	Leu	Thr	Cys	Ala	Ile	Ser	Gly	Asp	Ser	Val	Ser	Ser	Asn
			20					25					30		
Ser	Ala	Ala	Trp	Asn	Trp	Ile	Arg	Gln	Ser	Pro	Ser	Arg	Gly	Leu	Glu
		35					40					45			
Trp	Leu	Gly	Arg	Thr	Tyr	Tyr	Arg	Ser	Lys	Trp	Tyr	Ser	Asp	His	Ala
	50					55					60				
Val	Ser	Val	Arg	Ser	Arg	Ile	Thr	Ile	Tyr	Pro	Asp	Thr	Ser	Lys	Asn
65					70					75				80	
Gln	Phe	Ser	Leu	Gln	Leu	Asn	Ser	Val	Thr	Pro	Glu	Asp	Thr	Ala	Val
			85						90					95	
Tyr	Tyr	Cys	Ala	Arg	Asp	Arg	Ile	Ser	Gly	Thr	Tyr	Val	Gly	Met	Asp
			100					105					110		
Val	Trp	Gly	Gln	Gly	Thr	Thr	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys
		115					120					125			
Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Leu	Leu	Gln	Glu	His	Leu	Arg
	130					135					140				

Glu His Ser Gly Pro Gly Leu Pro Gly  
145 150

<210> 119  
<211> 526  
<212> DNA  
<213> Homosapien

<400> 119  
ccagctcagc tcctggggct gctaagtctc tgggtccctg gatccaatga ggatattgtg 60  
atgacccaga ctccactctc cctgcccgtc acccctggag agccggcctc catctcctgc 120  
aggtctagtc agagcctctt ggatagtgat gatggaaaca cctatttgga ctggtacctg 180  
cagaagccag ggcagtctcc acagctcctg atctatacgc tttcctttcg ggcctctgga 240  
gtcccagaca gggttcagtgg cagtgggtca ggcactgatt tcacactgac aatcagcagg 300  
gtggaggctg aggatgttgg agtttattac tgcattgcaac gtatagagtt tcctctcact 360  
ttcggcggag ggaccaagggt ggagatcaaa cgaactgtgg ctgcaccatc tgtcttcac 420  
ttcccgccat ctgatgagca gttgaaatct ggaactgcct ctgttgtgtg cctgctgaat 480  
aacttctatc ccagagaggc caaagtacag tgggaagggtg ataacg 526

<210> 120  
<211> 175  
<212> PRT  
<213> Homosapien

<400> 120  
Pro Ala Gln Leu Leu Gly Leu Leu Met Leu Trp Val Pro Gly Ser Asn  
1 5 10 15  
Glu Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro  
20 25 30  
Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp  
35 40 45  
Ser Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly  
50 55 60  
Gln Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Phe Arg Ala Ser Gly  
65 70 75 80  
Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu  
85 90 95  
Thr Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met  
100 105 110  
Gln Arg Ile Glu Phe Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu  
115 120 125  
Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser  
130 135 140  
Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn  
145 150 155 160  
Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn  
165 170 175

<210> 121  
<211> 499  
<212> DNA  
<213> Homosapien

<400> 121  
cagggtccagg tgggtacagtc tggggctgag gtgaagaacc ctggggcctc agtgaaggctc 60



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tctctgcaagg tttccggatc caccctcact gaattatcca tgcactgggt gcgacaggct 120
cctggaaaag ggcttgagt gatgggaggt tttgatcctg aagatgggtga aacaatctac 180
gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagtctac 240
atggagctga gcagcctgag atctgaggac acggccgtgt attactgtgc aaccaacgat 300
ttttggagtg gttattttga ctactggggc caggggaacc tggtcaccgt ctccctcagcc 360
tccaccaagg gcccatcggg cttccccctg gcgccctgct ccaggagcac ctccgagagc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480
aactcaggcg ctctgacca 499

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<210> 122

<211> 166

<212> PRT

<213> Homosapien

<400> 122

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Gln Val Gln Val Val Gln Ser Gly Ala Glu Val Lys Asn Pro Gly Ala
 1          5          10          15
Ser Val Lys Val Ser Cys Lys Val Ser Gly Ser Thr Leu Thr Glu Leu
 20          25          30
Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Met
 35          40          45
Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr Ala Gln Lys Phe
 50          55          60
Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr Asp Thr Val Tyr
 65          70          75          80
Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85          90          95
Ala Thr Asn Asp Phe Trp Ser Gly Tyr Phe Asp Tyr Trp Gly Gln Gly
 100          105          110
Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
 115          120          125
Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
 130          135          140
Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
 145          150          155          160
Asn Ser Gly Ala Leu Thr
 165

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<210> 123

<211> 536

<212> DNA

<213> Homosapien

<400> 123

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caggctctca tttctctgtt gctctggatc tctgatgtct atggggacat cgtgatgacc 60
cagtcctccag actccctggc tgtgtctctg ggcgagaggg ccaccatcac ctgcaagtcc 120
agccagactg ttttatacag ctccaacaat aagaactact tagtttggtg tcagcagaaa 180
tcaggacagc ctccctaagct gctcattcac tgggcatcta tccgggaatc cgggggccct 240
gaccgattca gtggcagcgg gtctgggaca gatttcacgc tcaccatcag cagcctgcag 300
gctgaagatg tggcagttta ttactgtcag caatattata gtagtccgtg gacgttcggc 360
caagggacca aggtggaaat caaacgaact gtggctgcac catctgtctt catcttcccc 420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
tatcccagag aggccaaagt acagtgggaag gtggataacg cccttccaat cgggta 536

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<210> 124

<211> 178

<212> PRT  
 <213> Homosapien

<400> 124  
 Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Asp Val Tyr Gly Asp  
 1 5 10 15  
 Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly Glu  
 20 25 30  
 Arg Ala Thr Ile Thr Cys Lys Ser Gln Thr Val Leu Tyr Ser Ser  
 35 40 45  
 Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Ser Gly Gln Pro  
 50 55 60  
 Pro Lys Leu Leu Ile His Trp Ala Ser Ile Arg Glu Ser Gly Val Pro  
 65 70 75 80  
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile  
 85 90 95  
 Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Tyr  
 100 105 110  
 Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys  
 115 120 125  
 Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu  
 130 135 140  
 Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe  
 145 150 155 160  
 Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Pro  
 165 170 175  
 Ile Gly

<210> 125  
 <211> 414  
 <212> DNA  
 <213> Homosapien

<400> 125  
 caggtgcagg ctgagcagtc ggggtccagga ctgggtgaagc cctcgcagac cctctcactc 60  
 acctgtgcc tctccgggga cagtgtctct agctacagtg ctgcttgga ctggatcagg 120  
 cagtcacctt cgagaggcct tgagtggctg ggaaggacat actacaggtc caagtggat 180  
 agtgatcatg cagtatctgt gagaagtcga ataaccatct acccagacac atccaagaac 240  
 cagttctccc tgcagctgaa ctctgtgact cccgaggaca cggctgtgta ttactgtgca 300  
 agagatcgga ttagtgggac ctatgtcggg atggacgtct ggggccaaagg gaccacgggc 360  
 accgtctcct cagcctccac caagggccccc atcgggtcttc cccctggccc cctc 414

<210> 126  
 <211> 138  
 <212> PRT  
 <213> Homosapien

<400> 126  
 Gln Val Gln Ala Glu Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln  
 1 5 10 15  
 Thr Leu Ser Leu Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Tyr  
 20 25 30  
 Ser Ala Ala Trp Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu  
 35 40 45  
 Trp Leu Gly Arg Thr Tyr Tyr Arg Ser Lys Trp Tyr Ser Asp His Ala

50		55		60	
Val Ser Val Arg Ser Arg Ile Thr Ile Tyr Pro Asp Thr Ser Lys Asn					
65		70		75	80
Gln Phe Ser Leu Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val					
	85		90		95
Tyr Tyr Cys Ala Arg Asp Arg Ile Ser Gly Thr Tyr Val Gly Met Asp					
	100		105		110
Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys					
	115		120		125
Gly Pro Ile Gly Leu Pro Pro Gly Pro Leu					
130		135			

<210> 127  
 <211> 514  
 <212> DNA  
 <213> Homosapien

<400> 127  
 gtcttcattt ctctgttgct ctggatctct ggtgcctacg gggacatcgt gatgacccag 60  
 tctccagact ccctggctgt gtctctgggc gagagggcca ccatcaactg caagtccagc 120  
 cagagtgttt tatacagttc caacaataag aactacatag tttggtacca gcagaaacca 180  
 gggcagcctc ctaagttgct catttactgg acatctaccc gggaatccgg ggtcacctgac 240  
 cgattcagtg gcagcggggtc tggaacagat ttcactctca ctatcagtag cctgcagggt 300  
 gaagatgtgg cagtttatta ctgtcagcaa tatttttagtt ctccgtggac gttcggccaa 360  
 gggaccaaag tggacatcaa acgaactgtg gctgcacccat ctgtcttcat cttcccgcca 420  
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 480  
 cccagagagg ccaaagtaca gtggaaggtg gata 514

<210> 128  
 <211> 171  
 <212> PRT  
 <213> Homosapien

<400> 128  
 Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Gly Ala Tyr Gly Asp Ile  
 1 5 10 15  
 Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly Glu Arg  
 20 25 30  
 Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser Ser Asn  
 35 40 45  
 Asn Lys Asn Tyr Ile Val Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro  
 50 55 60  
 Lys Leu Leu Ile Tyr Trp Thr Ser Thr Arg Glu Ser Gly Val Pro Asp  
 65 70 75 80  
 Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser  
 85 90 95  
 Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Tyr Phe  
 100 105 110  
 Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Asp Ile Lys Arg  
 115 120 125  
 Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln  
 130 135 140  
 Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr  
 145 150 155 160  
 Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp  
 165 170

<210> 129  
 <211> 444  
 <212> DNA  
 <213> Homosapien

<400> 129  
 cagtcgggtc caggactggt gaagccctcg cagaccctct cactcacctg tgccatctcc 60  
 ggggacagtg tctctagcaa cagtgtctgt tggaaactgga tcaggcagtc cccttcgaga 120  
 ggcccttgagt ggctgggaag gacatactac aggtccaagt ggtatagtga tcatgcagta 180  
 tctgtgagaa gtcgaataac catctacca gacacatcca agaaccagtt ctccctgcag 240  
 ctgaactctg tgactcccga ggacacggct gtgtattact gtgcaagaga tcggattagt 300  
 gggacctatg tcggtatgga cgtctggggc caagggacca cggtcaccgt ctctcagcc 360  
 tccaccaagg gcccatcggt cttccccctg gcgcccctgc tccaggagca cctccgagag 420  
 cacagcggcc ctgggctgcc tggc 444

<210> 130  
 <211> 148  
 <212> PRT  
 <213> Homosapien

<400> 130  
 Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Thr Leu Ser Leu Thr  
 1 5 10 15  
 Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn Ser Ala Ala Trp Asn  
 20 25 30  
 Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu Trp Leu Gly Arg Thr  
 35 40 45  
 Tyr Tyr Arg Ser Lys Trp Tyr Ser Asp His Ala Val Ser Val Arg Ser  
 50 55 60  
 Arg Ile Thr Ile Tyr Pro Asp Thr Ser Lys Asn Gln Phe Ser Leu Gln  
 65 70 75 80  
 Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg  
 85 90 95  
 Asp Arg Ile Ser Gly Thr Tyr Val Gly Met Asp Val Trp Gly Gln Gly  
 100 105 110  
 Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe  
 115 120 125  
 Pro Leu Ala Pro Leu Leu Gln Glu His Leu Arg Glu His Ser Gly Pro  
 130 135 140  
 Gly Leu Pro Gly  
 145

<210> 131  
 <211> 505  
 <212> DNA  
 <213> Homosapien

<400> 131  
 gggtgtctaa tgctctggat acctggatcc agtgcagata ttgggatgac ccagactcca 60  
 ctctctctgt ccgtcaccctc tggacagccg gcctccatct cctgtaagtc tagtcagagc 120  
 ctctgtata gtgatggaaa gacctatttg tattggtacc tgcagaagcc aggccagcct 180  
 ccacaacacc tgatctatga agtttccaac cggttctctg gagtgccaga taggttcagt 240  
 ggcagcgggt ctgggacaga ttccacactg aaaatcagcc ggggtggaggc tgatgatgtt 300  
 ggggtttatt actgcatgca aactatacac cttccgctca ctttcggcgg agggaccaag 360

gtggagatcc aacgaactgt ggctgcacca tctgtcttca tcttcccgcc atctgatgag 420  
 cagttgaaat ctggaactgc ctctgttgtg tgcctgctga ataacttcta tcccagagag 480  
 gccaaagtac agtgaaggt ggata 505

<210> 132  
 <211> 168  
 <212> PRT  
 <213> Homosapien

<400> 132  
 Gly Leu Leu Met Leu Trp Ile Pro Gly Ser Ser Ala Asp Ile Gly Met  
 1 5 10 15  
 Thr Gln Thr Pro Leu Ser Leu Ser Val Thr Pro Gly Gln Pro Ala Ser  
 20 25 30  
 Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser Asp Gly Lys Thr  
 35 40 45  
 Tyr Leu Tyr Trp Tyr Leu Gln Lys Pro Gly Gln Pro Pro Gln His Leu  
 50 55 60  
 Ile Tyr Glu Val Ser Asn Arg Phe Ser Gly Val Pro Asp Arg Phe Ser  
 65 70 75 80  
 Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg Val Glu  
 85 90 95  
 Ala Asp Asp Val Gly Val Tyr Tyr Cys Met Gln Thr Ile His Leu Pro  
 100 105 110  
 Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Gln Arg Thr Val Ala  
 115 120 125  
 Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser  
 130 135 140  
 Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu  
 145 150 155 160  
 Ala Lys Val Gln Trp Lys Val Asp  
 165

<210> 133  
 <211> 447  
 <212> DNA  
 <213> Homosapien

<400> 133  
 gagcagtcgg gtccaggact ggtgaagccc tcgcagaccc tctcactcac ctgtgccatc 60  
 tccggggaca gtgtctctag caacagtgtc gcttggaaact ggatcaggca gtccccttcg 120  
 agaggccttg agtggctggg aaggacatac tacagggtcca agtggatatag tgatcatgca 180  
 gtatctgtga gaagtcgaat aaccatctac ccagacacat ccaagaacca gttctccctg 240  
 cagctgaact ctgtgactcc cgaggacacg gctgtgtatt actgtgcaag agatcggatt 300  
 agtgggacct atgtcgggtat ggacgtctgg ggccaaggga ccacggtcac cgtctcctca 360  
 gcctccacca agggcccatc ggtcttcccc ctggcgcccc tgctccagga gcacctccga 420  
 gagcacagcg gccctgggct gcctggc 447

<210> 134  
 <211> 149  
 <212> PRT  
 <213> Homosapien

<400> 134  
 Glu Gln Ser Gly Pro Gly Leu Val Lys Pro Ser Gln Thr Leu Ser Leu  
 1 5 10 15

```

Thr Cys Ala Ile Ser Gly Asp Ser Val Ser Ser Asn Ser Ala Ala Trp
      20      25      30
Asn Trp Ile Arg Gln Ser Pro Ser Arg Gly Leu Glu Trp Leu Gly Arg
      35      40      45
Thr Tyr Tyr Arg Ser Lys Trp Tyr Ser Asp His Ala Val Ser Val Arg
      50      55      60
Ser Arg Ile Thr Ile Tyr Pro Asp Thr Ser Lys Asn Gln Phe Ser Leu
      65      70      75      80
Gln Leu Asn Ser Val Thr Pro Glu Asp Thr Ala Val Tyr Tyr Cys Ala
      85      90      95
Arg Asp Arg Ile Ser Gly Thr Tyr Val Gly Met Asp Val Trp Gly Gln
      100      105      110
Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
      115      120      125
Phe Pro Leu Ala Pro Leu Leu Gln Glu His Leu Arg Glu His Ser Gly
      130      135      140
Pro Gly Leu Pro Gly
145

```

```

<210> 135
<211> 520
<212> DNA
<213> Homosapien

```

```

<400> 135
caggctcttca tttctctgtt gctctggatc tctggtgcct acggggacat cgtgatgacc 60
cagtctccag actccctggc tgtgtctctg ggcgagaggg ccgccatcaa ctgcaagtcc 120
agccagactg ttttatacag ctccaacaat aagaactact tggtttggtg ccagcagaaa 180
ccaggcacgc ctcccaagct gctcatttac tgggcatcta cccgggaatc cgggggccct 240
gaccgattca gtggcagcgg gtctgggaca gatttcactc tcaccatcag cagcctgcag 300
gctgaagatg tggcagttta ttactgtcaa caatattata aaagtccgtg gacgttcggc 360
caagggacca aggtggaaat caaacgaact gtggctgcac catctgtctt catcttcccg 420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
tatcccagag aggccaaagt acagtggaag gtggataacg 520

```

```

<210> 136
<211> 173
<212> PRT
<213> Homosapien

```

```

<400> 136
Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Gly Ala Tyr Gly Asp
 1      5      10      15
Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly Glu
      20      25      30
Arg Ala Ala Ile Asn Cys Lys Ser Ser Gln Thr Val Leu Tyr Ser Ser
      35      40      45
Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln Pro
      50      55      60
Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val Pro
      65      70      75      80
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
      85      90      95
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Tyr
      100      105      110
Tyr Lys Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys

```



<212> DNA  
<213> Homosapien

<400> 139  
agacccagggt cttcatttct ctggttgctct ggatctctgg tgcctacggg gacatcgtga 60  
tgacccagtc tccagactcc ctggctgtgt ctctgggcca gagggccacc atcaactgca 120  
agtccagcca gagtatatta tacagctcca ataataagaa ttatttagtt tggtagaccagc 180  
agaaaccagg acagcctcct aagttgctca tttactgggc atctaccggg gaatccgggg 240  
tccctgaccg attcagtggc agcgggtctg ggacagattt cactctcacc atcagcagcc 300  
tgcaggctga agatgtggca gtttattact gtcagcaata ttatagtagt cctccgacgt 360  
tcggccaagg gaccaagggt gaaatcaaac gaactgtggc tgcaccatct gtcttcatct 420  
tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttgtgtgc ctgctgaata 480  
acttctatcc cagagaggcc aaagtacagt ggaagggtga taacgcctc caatcgggta 540

<210> 140  
<211> 179  
<212> PRT  
<213> Homosapien

<400> 140  
Thr Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Gly Ala Tyr Gly  
1 5 10 15  
Asp Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly  
20 25 30  
Glu Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Ile Leu Tyr Ser  
35 40 45  
Ser Asn Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln  
50 55 60  
Pro Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val  
65 70 75 80  
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr  
85 90 95  
Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln  
100 105 110  
Tyr Tyr Ser Ser Pro Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile  
115 120 125  
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp  
130 135 140  
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn  
145 150 155 160  
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu  
165 170 175  
Gln Ser Gly

<210> 141  
<211> 518  
<212> DNA  
<213> Homosapien

<400> 141  
accatggagt ggacctggag ggtcctcttc ttggtggcag cagctacagg caccacgcc 60  
caggtccagc tggtagagtc tggggctgag gtgaagaagc ctggggcctc agtgaaggct 120  
tcctgcaagg tttccggata caccctcact gaattatcca tgcactgggt gcgacaggct 180  
cctggaaaag ggcttgagtg gatgggaggt tttgatcctg aagatggtga aacaatctac 240



```

gcacagaagt tccagggcag agtcaccatg accgaggaca catctacaga cacagcctac 300
atggagctga gtagcctgag aactgaggac acggccgtgt attactgtac aacggacgat 360
ttttggagtg gttattttga ctactggggc caggggaaccc tggtcaccgt ctccctcagcc 420
tccaccaagg gcccatcggt cttccccctg gcgccctgct ccaggagcac ctccgagagc 480
acagcggcct gggctgcctg gtcaaggact acttcccc 518

```

<210> 142  
 <211> 172  
 <212> PRT  
 <213> Homosapien

```

<400> 142
Thr Met Glu Trp Thr Trp Arg Val Leu Phe Leu Val Ala Ala Ala Thr
1      5      10      15
Gly Thr His Ala Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys
20     25     30
Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Val Ser Gly Tyr Thr
35     40     45
Leu Thr Glu Leu Ser Met His Trp Val Arg Gln Ala Pro Gly Lys Gly
50     55     60
Leu Glu Trp Met Gly Gly Phe Asp Pro Glu Asp Gly Glu Thr Ile Tyr
65     70     75     80
Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Glu Asp Thr Ser Thr
85     90     95
Asp Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Thr Glu Asp Thr Ala
100    105    110
Val Tyr Tyr Cys Thr Thr Asp Asp Phe Trp Ser Gly Tyr Phe Asp Tyr
115    120    125
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
130    135    140
Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser
145    150    155    160
Thr Ala Ala Trp Ala Ala Trp Ser Arg Thr Thr Ser
165    170

```

<210> 143  
 <211> 519  
 <212> DNA  
 <213> Homosapien

```

<400> 143
caggtcttca tttctctggt gctctggatc tctggtgcct acggggacat cgtgatgacc 60
cagtctccag actccctggc tgtgtctctg ggcgagaggg ccaccatcaa ctgcaagtcc 120
agccagagtc ttttatacag ctccaaaaat aagaactatt tagtttggtg ccagcagaaa 180
ccaggacagc ctccaaagct gtcattaac tgggcatcta cccgggaatc cggggtccct 240
gaccgattca gtggcagcgg gtctgggaca gatttcaact tcaccatcag cagcctgcag 300
gctgaagatg tggcagttta ttactgtcag caatattata gttctccgtg gacgttcggc 360
caagggacca aggtggaaat caaacgaact gtggctgcac catctgtctt catcttcccc 420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
tatcccagag aggcaaagta cagtggaagg tggatacgc 519

```

<210> 144  
 <211> 173  
 <212> PRT  
 <213> Homosapien

<400> 144

```
Gln Val Phe Ile Ser Leu Leu Leu Trp Ile Ser Gly Ala Tyr Gly Asp
 1           5           10           15
Ile Val Met Thr Gln Ser Pro Asp Ser Leu Ala Val Ser Leu Gly Glu
          20           25           30
Arg Ala Thr Ile Asn Cys Lys Ser Ser Gln Ser Leu Leu Tyr Ser Ser
      35           40           45
Lys Asn Lys Asn Tyr Leu Val Trp Tyr Gln Gln Lys Pro Gly Gln Pro
 50           55           60
Pro Lys Leu Leu Ile Asn Trp Ala Ser Thr Arg Glu Ser Gly Val Pro
65           70           75           80
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
          85           90           95
Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln Gln Tyr
          100          105          110
Tyr Ser Ser Pro Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
      115          120          125
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
      130          135          140
Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
145          150          155          160
Tyr Pro Arg Glu Ala Lys Tyr Ser Gly Arg Trp Ile Arg
          165          170
```

<210> 145

<211> 436

<212> DNA

<213> Homosapien

<400> 145

```
gagcagtcgg ggggaggcgt ggtccagcct gggagggtccc tgagactctc ctgtgcagcg 60
tctggattca ccttcagtag ctatggcatg cactgggtcc gccagggtcc aggcaagggg 120
ctggagtggg tggcagttat atggtatgat ggaaataata aatactatgc agactccgtg 180
aagggccgat tcaccatctc cagagacact tccaagaaca cgctgtatct gcaaatgaac 240
agcctgagag ccgaggacac ggctgtgtat tactgtgcga gagatagcag ctcg tactac 300
tactacggta tggacgtctg gggccaaggg accacgggtca ccgtctcctc agcctccacc 360
aaggggcccat cgggtcttccc cctggcgccc tgctccagga gcacctccga gagcacagcg 420
gccctgggct gcctgg                                     436
```

<210> 146

<211> 145

<212> PRT

<213> Homosapien

<400> 146

```
Glu Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg Ser Leu Arg Leu
 1           5           10           15
Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr Gly Met His Trp
          20           25           30
Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ala Val Ile Trp
          35           40           45
Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe
          50           55           60
Thr Ile Ser Arg Asp Thr Ser Lys Asn Thr Leu Tyr Leu Gln Met Asn
65           70           75           80
Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Ser
```

[illegible]

<400>	147						
gctccgctac	ttctcaccct	cctcgctcac	tgcacaggtt	cttggggccaa	ttttatgctg	60	
actcagcccc	actctgtgtc	ggagtctccg	gggaagacgg	taaccatctc	ctgcaccgcg	120	
agcagtggca	gcattgccag	caactatgtg	cagtgggttc	agcagcgccc	gggcagttcc	180	
cccaccactg	taatctatga	ggatgaccaa	agaccctctg	gggtccctga	tcggttctgt	240	
ggctccatcg	acagctcctc	caactctgcc	tccctcacca	tctctggact	gaggactgag	300	
gacgaggctg	actactactg	tcagtcttat	gatagcagca	atcatgtggg	attcggcgga	360	
gggaccaagc	tgaccgtcct	aggtcagccc	aaggctgccc	cctcggtcac	tctgttcccg	420	
ccctcctc						428	

<400> 148																
Ala	Pro	Leu	Leu	Leu	Thr	Leu	Leu	Ala	His	Cys	Thr	Gly	Ser	Trp	Ala	
1				5					10					15		
Asn	Phe	Met	Leu	Thr	Gln	Pro	His	Ser	Val	Ser	Glu	Ser	Pro	Gly	Lys	
			20					25					30			
Thr	Val	Thr	Ile	Ser	Cys	Thr	Arg	Ser	Ser	Gly	Ser	Ile	Ala	Ser	Asn	
		35					40					45				
Tyr	Val	Gln	Trp	Phe	Gln	Gln	Arg	Pro	Gly	Ser	Ser	Pro	Thr	Thr	Val	
	50					55					60					
Ile	Tyr	Glu	Asp	Asp	Gln	Arg	Pro	Ser	Gly	Val	Pro	Asp	Arg	Phe	Cys	
65					70					75				80		
Gly	Ser	Ile	Asp	Ser	Ser	Ser	Asn	Ser	Ala	Ser	Leu	Thr	Ile	Ser	Gly	
				85					90					95		
Leu	Arg	Thr	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Gln	Ser	Tyr	Asp	Ser	
			100					105					110			
Ser	Asn	His	Val	Val	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu	Gly	
		115					120					125				
Gln	Pro	Lys	Ala	Ala	Pro	Ser	Val	Thr	Leu	Phe	Pro	Pro	Ser			
	130					135					140					

<400> 149

Gln	Pro	Asp	Ala	Ile	Asn	Ala	Pro	Val	Thr	Cys	Cys	Tyr	Asn	Phe	Thr
1				5				10						15	
Asn	Arg	Lys	Ile	Ser	Val	Gln	Arg	Leu	Ala	Ser	Tyr	Arg	Arg	Ile	Thr
			20					25					30		
Ser	Ser	Lys	Cys	Pro	Lys	Glu	Ala	Val	Ile	Phe	Lys	Thr	Ile	Val	Ala
		35					40					45			
Lys	Glu	Ile	Cys	Ala	Asp	Pro	Lys	Gln	Lys	Trp	Val	Gln	Asp	Ser	Met
	50					55					60				
Asp	His	Leu	Asp	Lys	Gln	Thr	Gln	Thr	Pro	Lys	Thr				
65					70					75					

<210> 150

<211> 16

<212> PRT

<213> Homosapien

<400> 150

Ile	Ser	Val	Gln	Arg	Leu	Ala	Ser	Tyr	Arg	Arg	Ile	Thr	Ser	Ser	Lys
1					5				10					15	